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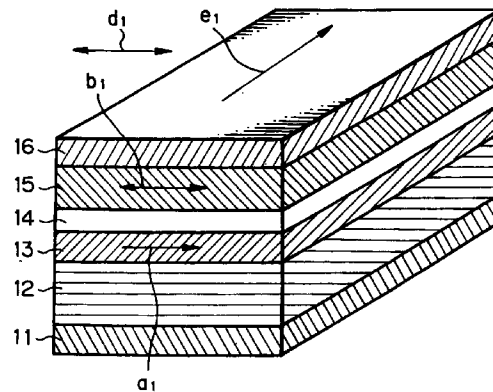
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(54) **Magnetoresistive transducer with spin-valve structure and manufacturing method of the same**

(57) The spin-valve structure has at least an antiferromagnetic material layer (12) made of a NiMn alloy, a first ferromagnetic material layer (13), a nonmagnetic material layer (14) and a second ferromagnetic material layer (15) sequentially deposited on the substrate in this order.

Fig. 1





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 96 10 9479

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Y	PATENT ABSTRACTS OF JAPAN vol. 095, no. 006, 31 July 1995 & JP 07 074022 A (HITACHI LTD), 17 March 1995, * abstract *	1	G11B5/39 G01R33/09 H01F10/08
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Y	EP 0 581 418 A (IBM) 2 February 1994 * page 4, line 20 - line 41; claims 1,2,4,9; figure 2 *	1	
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D,A	T.LIN ET AL: "Improved exchange coupling between ferromagnetic Ni-Fe and antiferromagnetic Ni-Mn-based films" APPLIED PHYSICS LETTERS., vol. 65, no. 9, 29 August 1994, NEW YORK US, pages 1183-1185, XP002064680 * the whole document *	1,3,4	
A	EP 0 538 871 A (TDK CORP.) 28 April 1993 * claims 1,3,4,6 *	1,4,5	
P,X	EP 0 677 750 A (HEWLETT-PACKARD COMP.) 18 October 1995 * column 5, line 10 - line 24; claims 1,2,6,9-13 *	1,4,5,7, 10,11	G11B G01R H01F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 12 May 1998	Examiner Decanniere, L
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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